

Date: Sun, 1 May 94 04:30:24 PDT  
From: Ham-Homebrew Mailing List and Newsgroup <ham-homebrew@ucsd.edu>  
Errors-To: Ham-Homebrew-Errors@UCSD.Edu  
Reply-To: Ham-Homebrew@UCSD.Edu  
Precedence: Bulk  
Subject: Ham-Homebrew Digest V94 #115  
To: Ham-Homebrew

Ham-Homebrew Digest                      Sun, 1 May 94                      Volume 94 : Issue 115

Today's Topics:

                    digital RF Broadcasts

Send Replies or notes for publication to: <Ham-Homebrew@UCSD.Edu>  
Send subscription requests to: <Ham-Homebrew-REQUEST@UCSD.Edu>  
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Homebrew Digest are available  
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-homebrew".

We trust that readers are intelligent enough to realize that all text  
herein consists of personal comments and does not represent the official  
policies or positions of any party. Your mileage may vary. So there.

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Date: 30 Apr 1994 19:39:49 GMT  
From: ihnp4.ucsd.edu!library.ucla.edu!agate!blanket.mitre.org!think.com!  
grapevine.lcs.mit.edu!chaos.dac.neu.edu!lynx.dac.neu.edu!tafu@network.ucsd.edu  
Subject: digital RF Broadcasts  
To: ham-homebrew@ucsd.edu

Zack Lau (KH6CP) (zlau@arrl.org) wrote:  
: yctcsl@cerfnet.com wrote:

: I'm certainly not a regulatory expert, but my experience is that  
: very low frequencies tend to handle obstructions the best. The  
: Navy uses them to communicate with submarines. I've actually  
: heard VLF signals through our solid metal screen room walls.  
: (it isn't designed to stop such low frequencies). But, generating  
: strong signals generally requires large antennas and high data  
: rates are usually considered impossible. Noise at VLF can also  
: be a big problem. But, if you want signals to go through water,  
: concrete, and steel, consider frequencies below 30 kHz.

Maybe I can share my past experience on designing 900MHz cordless phone.  
It is true that frquencies as high as 900MHz has no advantage for

penetrating concrete. The \$100 worth 900MHz cordless phone has coverage similar to a \$30 46-49MHz counterpart. Also at high frequencies, problems associate with multipath fading become serious.

However, it is a trend that communication devices are getting higher and higher in operating frequencies. That may be due to the following points:

1. There is virtually no room at the lower end of the spectrum. On the other hands, higher the frequency, wider the bandwidth will be.
2. Consumer product must have a small size. Low frequencies require huge antennae.
3. With spread spectrum technology, the problem of multipath can be more or less improved.

Regards  
-Tiger

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End of Ham-Homebrew Digest V94 #115  
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